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#### State of California AIR RESOURCES BOARD

# EXECUTIVE ORDER A-10-661 Relating to Certification of New Motor Vehicles

#### FORD MOTOR COMPANY

Pursuant to the authority vested in the Air Resources Board by the Health and Safety Code, Division 26, Part 5, Chapter 2; and

Pursuant to the authority vested in the undersigned by Health and Safety Code Sections 39515 and 39516 and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That Ford Motor Company 1996 model-year exhaust emission control systems are certified as described below for light-duty trucks:

<u>Fuel Type</u>: Gasoline

Engine Family: TFM4.028G1EK Displacement: 4.0 Liters (244 Cubic Inches)

Exhaust Emission Control Systems & Special Features:

Three Way Catalytic Converters (two)
Dual Heated Oxygen Sensors
Heated Oxygen Sensor
Exhaust Gas Recirculation
Sequential Multiport Fuel Injection

Vehicle models, transmissions, engine codes and evaporative emission control families are listed on attachments.

The certification exhaust emission standards for this engine family in grams per mile are:

Loaded Vehicle Weight(1bs.)	Miles	Non-Methane <u>Hydrocarbons</u>	Carbon <u>Monoxide</u>	Nitrogen <u>Oxides</u>	Carbon Monoxide (20°F)
3751-5750	50,000	0.32	4.4	0.7	12.5
	100,000	0.40	5.5	0.97	n/a

The certification exhaust emission values for this engine family in grams per mile are (The value in parentheses is the actual certification value before rounding off.):

Loaded Vehicle	<u>Miles</u>	Non-Methane	Carbon	Nitrogen	Carbon
Weight(lbs.)		<u>Hydrocarbons</u>	Monoxide	<u>Oxides</u>	Monoxide (20°F)
3751-5750	50,000	0.12	1.9	0.1 (0.09)	7.8
	100,000	0.13	2.3	0.09	n/a

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the aforementioned exhaust emission standards based on its submitted plan to comply with the fleet average non-methane organic gas (NMOG) exhaust mass emission requirements as set forth in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That under the submitted NMOG fleet average compliance plan, if the manufacturer incurs a NMOG debit for the aforementioned model year based on the projected NMOG fleet average exceeding the value required by the above-referenced standards and test procedures, all incurred NMOG debits by the manufacturer shall be equalized as required by the standards and test procedures.

BE IT FURTHER RESOLVED: That the vehicle manufacturer is certifying the listed vehicle models to the 50,000-mile evaporative emission standards applicable to 1980 through 1994 model-year vehicles in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles", and the listed vehicle models comply with those standards.

BE IT FURTHER RESOLVED: That, based on the evaporative emission phase-in compliance schedule submitted by the vehicle manufacturer, the listed vehicle models shall not be subject to the running loss and useful life standards set forth in the "California Evaporative Emission Standards and Test Procedures for 1978 and Subsequent Model Motor Vehicles."

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's "Specifications for Fill Pipes and Openings of Motor Vehicle Fuel Tanks" for the aforementioned model year (Title 13, California Code of Regulations, Section 2235).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the Board's high-altitude requirements and highway emission standards, and with the California Inspection and Maintenance emission standards in place at the time of certification, as stipulated in "California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles".

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "California Motor Vehicle Emission Control Label Specifications" for the aforementioned model year (Title 13, California Code of Regulations, Section 1965).

BE IT FURTHER RESOLVED: That the listed vehicle models also comply with the "Malfunction and Diagnostic System Requirements--1994 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines" (Title 13, California Code of Regulations, Section 1968.1) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed vehicles, the manufacturer has submitted and the Executive Officer hereby approves the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Vehicles certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this \_\_\_\_\_ day of August 1995.

R. B. Summerfield Assistant Division Chief Mobile Source Division

## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD	MOTOR COMPANY	Exi	haust Engi	ine Fam	ily: <u>TFM4.</u>	028G1EK	
Engine Code T	ypes: CA <u>X</u> 49S_	50S Eva	aporative	Emissi	ons Family:	TFM1045AY	PBA
Exh Std: Tier	-0 Tier-1_X	TLEVLEV	ulev	z	EV EPA I	'IER-O	TIER-1
Evap Std: 50	K <u>X</u> Useful Lif	e with R/L	In-Use E	xh Std	: Full In Us	e Alt	In Use
Veh Class(es)	: PC LDT1	LDT2 <u>X</u> MDV	71 MDV	·2 :	MDV3 MDV	74 MDV5	i
Single Cert S	td for Multi-Cla	ss Eng Fam: <u>N</u>	<u>/A</u> (sp	ecify:	N/A, LDT1,M	DV1,MDV2,M	DV3,MDV4)
Exh Cert Fuel	(s): Indo X Phi M85 CN	2 Diesel:	13 CCR 22	82	or 40CFR 86.	113-90	or -94
Fuel Type(s):	Dedicated	Flex Fuel	Dual-Fuel				
Hybrid: Type	Gasoline <u>X</u> D A B C	iesel M85_ _, APU Cycl	CNG le (eg,	_ LPG <sub>.</sub> Otto,	Other ( Diesel, Turb	specify) ine)	
	<u>V-6</u> Disp 2_ t_X Mid Rea						T <u>X</u>
Exhaust Contr	ol System and Spe	ecial Features			S. EGR <i>H02</i> tions per SA		P91)
Engine Code	Vehicle Models			DPA		EGR	Catalytic
(also list CA/49ST/50ST	(if coded see attachment)	A-Automatic M-Manual	or Test Wt	or RLHP	(ECM/PCM) Part No.	System Part No.	Converter Part No.
557TR15A/N	Ranger/Mazda 4x2	<b>M</b> 5			F57F-DAA	F3DE-AA	F57A-BD
;	SC SWB		3750#	11.2		F37E-CA	
:	SC SWB		3875	12.3*			
]	Ranger/Mazda 4x4						
]	RC LWB		3875	12.0			
	RC SWB		3875	12.0			
	RC SWB RC LWB (Mazda on)	.y)	4000#	12.0 13.2*			
I I	RC SWB RC LWB (Mazda on) RC SWB	•	4000# 3875	12.0 13.2* 13.2*			
I I S	RC SWB RC LWB (Mazda onl RC SWB SC SWB (Mazda onl	•	4000# 3875 4250#	12.0 13.2* 13.2* 12.0			
I I S	RC SWB RC LWB (Mazda onl RC SWB BC SWB (Mazda onl BC SWB	.y)	4000# 3875 4250# 4250	12.0 13.2* 13.2* 12.0 13.2*			
I I S I	RC SWB RC LWB (Mazda onl RC SWB SC SWB (Mazda onl	.y) nly)	4000# 3875 4250#	12.0 13.2* 13.2* 12.0			

<sup>\*</sup> with air conditioning

<sup>#</sup> per R/C 4.0-123

## 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. <u>FOR</u>	D MOTOR COMPANY	Ex	haust Eng	ine Fam	nily: <u>TFM4.</u>	028G1EK	
Engine Code	Types: CA <u>X</u> 49S	50S Ev	aporative	Emissi	ons Family:	TFM1045AY	PBA
Exh Std: Ti	er-0 Tier-1 <u>X</u>	_ TLEV LE	V ULE	/ z	EV EPA :	TIER-O	TIER-1
Evap Std:	50K <u>X</u> Useful Lii	fe with R/L	In-Use H	Exh Std	: Full In Us	se Alt	In Use
Veh Class(e	s): PC LDT1	LDT2 <u>X</u> MD	V1 MD\	72	MDV3 MDV	/4 MDV	i
Single Cert	Std for Multi-Cla	ass Eng Fam: <u>l</u>	<u>V/A</u> (sp	ecify:	N/A, LDT1,N	IDV1,MDV2,M	IDV3,MDV4)
	): Dedicated	Flex Fuel	Other (sp Dual-Fuel	ecicy) 			
	Gasoline <u>X</u> I pe A B C	Diesel M85	CNG	LPG	Other ( Diesel, Turb	(specify) pine)	
	ig <u>V-6</u> Disp <u>2</u> ont <u>X Mid</u> Re						PT_X_
Exhaust Con	trol System and Sp	ecial Features			S <u>. EGR <i>H02</i></u> tions per SA		EP91)
Engine Code (also list CA/49ST/50ST	(if coded see		ETW or Test Wt	DPA or RLHP			1
657TR10A/N	Ranger/Mazda 4x2	M5			F57F-DAB	F3DE-AA F37E-CA	F57A-BD
	SC SWB		3750# 3875	11.2 12.3*		F3/E-CA	
	Ranger/Mazda 4x4						
	RC LWB		3875	12.0			
	RC SWB	1\	3875	12.0			
	DC TIID /W						
	RC LWB (Mazda on	ту)	4000#	13.2*			
	RC SWB	•	3875	13.2*			
	RC SWB SC SWB (Mazda on	•	3875 4250#	13.2* 12.0			
	RC SWB SC SWB (Mazda on SC SWB	ly)	3875 4250# 4250	13.2* 12.0 13.2*			
	RC SWB SC SWB (Mazda on	ly) nly)	3875 4250#	13.2* 12.0			

<sup>\*</sup> with air conditioning

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### 1996 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET PASSENGER CARS, LIGHT-DUTY AND MEDIUM-DUTY TRUCKS

Mfgr. FORD MOTOR COMPANY	Exhaust Engi	ne Fami	ly: <u>TFM4.</u> (	028G1EK	
Engine Code Types: CA <u>X</u> 49S 50S	Evaporative	Emissio	ns Family:_	TFM1045AYI	PBA
Exh Std: Tier-0 Tier-1_X TLEV	LEVULEV_	ZE	V EPA T	'IER-0	TIER-1
Evap Std: 50K <u>X</u> Useful Life with R/L	In-Use Ex	kh Std:	Full In Us	e Alt	In Use
Veh Class(es): PC LDT1 LDT2_X	MDV1 MDV	2 M	DV3MDV	/4 MDV5	· <u> </u>
Single Cert Std for Multi-Class Eng Fam	: <u>N/A</u> (spe	ecify: 1	N/A, LDT1,M	DV1,MDV2,M	DV3,MDV4)
Exh Cert Fuel(s): Indo X Ph2 Diese	el: 13 CCR 228	32 01	40CFR 86.	113-90	or -94
M85 CNG LPG_ Fuel Type(s): Dedicated Flex Fuel_	Dual-Fuel				
Gasoline <u>X</u> Diesel Hybrid: Type A B C, APU	M85 CNG	_ LPG_	Other (	specify)	
Engine Config <u>V-6</u> Displacement: Valves/Cyl: 2	Rated HP: 1	60 a.	4200 RPM	•	
Engine: Front X Mid Rear	Drive: Fwd_	RWD	X 4WD-FT	4WD-E	T <u>X</u>
Exhaust Control System and Special Feat	ures TWC/z)SF1	. 2H02S	EGR HOZ	5	
•			ions per SA		P91)
Engine Code   Vehicle Models; Trans. To	ype   ETW	DPA 1	Ignition	EGR	Catalytic
(also list (if coded see A-Automa			(ECM/PCM)	System	Converter
CA/49ST/50ST attachment) M-Manua	al Test Wt	RLHP	Part No.	Part No.	
657TR11A/N Ranger/Mazda 4x2 M5					Part No.
		1	F57F-DAC	F3DE-AA F37E-CA	F57A-BD
SC SWB		11.2	F57F-DAC	F3DE-AA F37E-CA	
SC SWB SC SWB			F57F-DAC		
		11.2	F57F-DAC		
SC SWB		11.2	F57F-DAC		
SC SWB Ranger/Mazda 4x4 RC LWB RC SWB	3875	11.2 12.3*	F57F-DAC		
SC SWB Ranger/Mazda 4x4 RC LWB RC SWB RC LWB (Mazda only)	3875 3875 3875 4000#	11.2 12.3* 12.0 12.0 13.2*	F57F-DAC		
SC SWB  Ranger/Mazda 4x4  RC LWB  RC SWB  RC LWB (Mazda only)  RC SWB	3875 3875 3875 4000# 3875	11.2 12.3* 12.0 12.0 13.2* 13.2*	F57F-DAC		
SC SWB  Ranger/Mazda 4x4  RC LWB  RC SWB  RC LWB (Mazda only)  RC SWB  SC SWB (Mazda only)	3875 3875 3875 4000# 3875 4250#	11.2 12.3* 12.0 12.0 13.2* 13.2* 12.0	F57F-DAC		
Ranger/Mazda 4x4 RC LWB RC SWB RC LWB (Mazda only) RC SWB SC SWB (Mazda only) SC SWB	3875 3875 3875 4000# 3875 4250# 4250	11.2 12.3* 12.0 12.0 13.2* 13.2* 12.0 13.2*	F57F-DAC		
SC SWB  Ranger/Mazda 4x4  RC LWB  RC SWB  RC LWB (Mazda only)  RC SWB  SC SWB (Mazda only)	3875 3875 3875 4000# 3875 4250# 4250 3875#	11.2 12.3* 12.0 12.0 13.2* 13.2* 12.0	F57F-DAC		

ENGINE FAMILY: TFM4.028G1EK ISSUED: 2-08-96 REVISED: 4-22-96

<sup>\*</sup> with air conditioning

<sup>#</sup> per R/C 4.0-123